

RESEARCH ARTICLE



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Exciting of vehicle wise accidents in Mysore city

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Abstract

The importance of this study is to identify Vehicle wise Accidents in Mysore city. In this research paper Methodology used for the analysis of the vehicle-wise accident collected secondary data of 2013 from Mysore city traffic police. With the help of GPS point plotting the location of accidents by the two-wheelers, three-wheelers, four-wheelers, and six wheelers and digitization of toposheet for study area roads map using Arc GIS software. The result shows that compare among four types of vehicles Two-wheelers are the highest account to 41.13% accidents and Three-wheelers account for 10.08 % is the lowest vehicle accidents in Mysore city in 2013. Vehicle accidents are very common in urban and Highways, so earlier only we have to take the right action and measurements to avoid the accidents.

Keywords: Vehiclewise; Accident; Global Positioning System; GIS

Introduction

The fast growth of population and growing economic activities have caused in the tremendous growth of motor vehicles which is considered one of the main factors responsible for increasing road accidents in many metropolitan cities of India (C. Vigneshkumar. 2014). The accidents cost approximately about 3% of India's GDP. To bring down this huge burden on the Indian economy (Pardeep Singh and Deepak Dalal. 2018). The level of susceptibility of road-users to accidents are from head to foot as the same road space is shared between a wide variety of motorized, non motorized vehicles and pedestrians. Among motorized vehicles, two-wheelers constitute 73.5%, and light motor vehicles comprising of cars, jeeps, and taxis consti-

tute 13.1 %. Non-motorized vehicles on the roads include cycles, cycle rickshaws, hand-drawn carts, animal-drawn carts (Road Accidents in India – 2017). Traffic accidents origin many losses exclusively of human life, property damages, and loss of resources. Even in conflict prejudiced countries such as Afghanistan, Libya, Pakistan, and Yemen, road traffic accidents persist the most shared reason for fatal injuries, causing between two and eight times more fatalities than war and lawful mediation. Traffic accidents have enormously grownup newly and are classified as the third cause of projected deaths in 2020. Traffic accidents are threatening the life of the communal and the economy of the countries. (Mohamad et al. 2019) Road traffic accidents (RTAs) have turned out to be a huge global

public health and development problem (Goswami A., and Sonowal R.). assumed to control the head injury patterns of two-wheeler riders admitted hospital in Delhi 87 crash victims were studied for one year and results show that accident patterns, age distribution, average injury harshness and driving experience of patients admitted were dissimilar from those reported in studies showed in industrialized countries (Mishra B.K et al. 1984). drivers' fault accounted for 78% of total accidents, 76.5% of total injuries and 73.7% of total fatalities in 2013 (Singh S.K .2017). The Govt. of India, road transport Research Wing, New Delhi officially reported in 2010 the vehicle categories, two-wheelers accounted for the highest share in total road accidents (23.8%), followed by trucks, tempos, tractors, and other articulated vehicles (23.3%), cars, jeeps and taxis (21.8%), buses (9.5%), auto-rickshaws (7.3%) and other motor vehicles (7.8%).

Objectives

- Study and analysis the vehicle wise road accidents in Mysore city in 2013.
- Identify the types of vehicles involved in road accidents in Mysore city in 2013

Methodology

In this study mainly used both primary and secondary data. Primary surveyed each accident location with help of GPS and secondary data of one-year January-December 2013 of vehicle-wise accident data collected from Mysore city traffic police recorded reports. Digitization of topo sheet for study area road map using Arc GIS software and plotting the vehicle-wise accident location points of two-wheelers, three-wheelers, four-wheelers, and six wheelers with the help of a Collection of coordinates points from GPS instrument.

Discussion and result

Accidents can occur due to several reasons, but the severity of it varies with the type of vehicle involved in it. The vehicle involved in accidents in Mysore City can be classified into the following four categories: Two-wheeler vehicle (Motorcycles), Three-wheeler vehicle (Auto Rickshaws), Four-wheeler vehicle (light Motor Vehicles), and Six-wheeler vehicle (Heavy Motor Vehicles).

The location of accidents by the two-wheelers, three-wheelers, four-wheelers, and six wheelers are shown in Map no 1 to 4. The details of the types of vehicles involved in the accidents in Mysore City are shown in Table no.1.

Table 1. Number of accidents during the type of vehicle in Mysore City (2013)

Sl. No	Vehicle Type	Number of vehicles
1	Two-Wheeler vehicle	371
2	Four-Wheeler vehicle	297
3	Three-Wheeler Vehicle	91
4	Six-Wheeler Vehicle	143
Total		902

Source: Traffic Police Stations

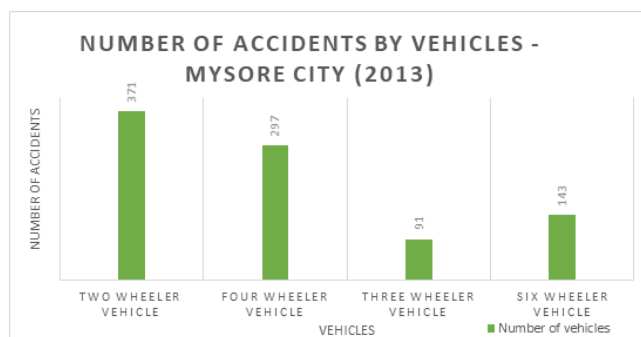


Fig. 1. Number of accidents by type of vehicle in Mysore city (2013)

Two-Wheeler Accidents

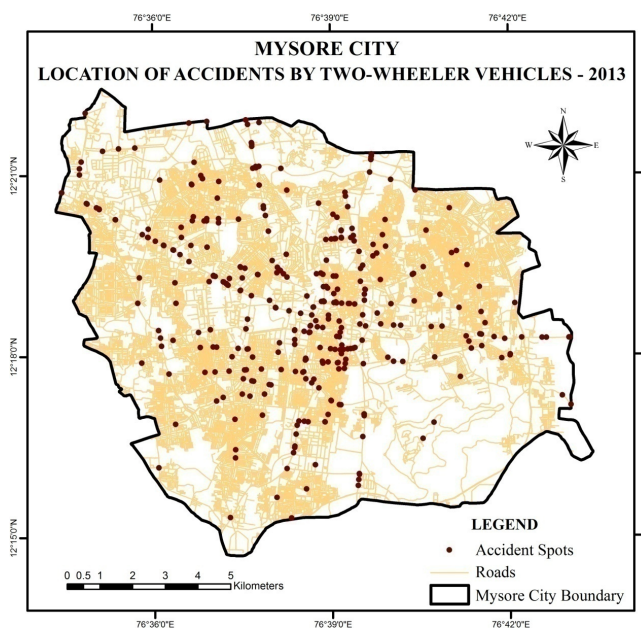


Fig. 2. Location of accidents by two-wheeler vehicles in Mysore City (2013)

Two-wheelers are involved in the majority of the accidents in Mysore City. These vehicles ignore the traffic rules in most of the cases, which has led to accidents. Signal jumping, drunken driving, and over-speeding have caused the hike

in the numbers of two-wheeler accidents. The two-wheeler vehicles are one of the most vulnerable road users. 371 accidents were reported in the City, which involved two-wheeler vehicles in the year 2013. The two-wheelers account for 41.13 percent of the total accidents in the year 2013.

More fatal accidents are common with two-wheelers leading to death. The increasing number of two-wheelers and the absence of proper traffic regulations are also the reasons for these accidents. The central area of the city has the highest concentration of two-wheeler accidents due to heavy traffic congestion and signal violations. Accidents are common across Hunsur Road (State Highway 88), Bannur Road (State Highway 33), Bangalore-Mysore Road (State Highway 17), KRS Road, Adichunchangiri Road, Dr. Rajkumar Road, and some parts of Ring Road.

Three-Wheeler Accidents

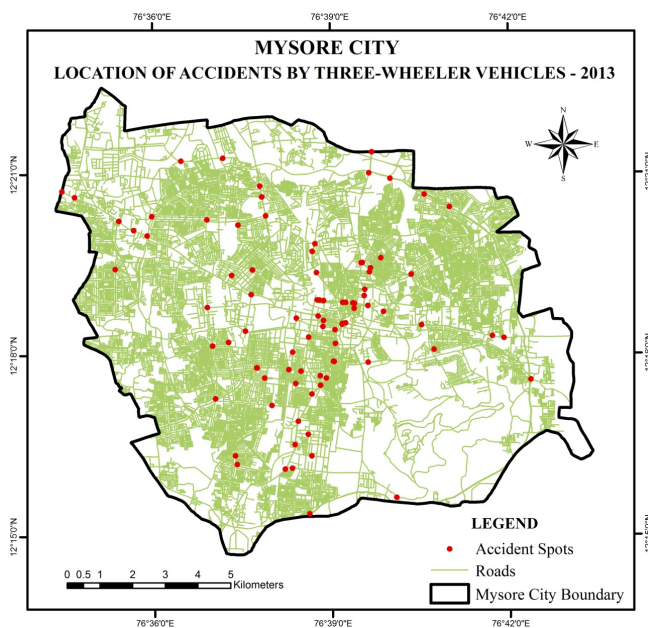


Fig. 3. Location of accidents by three-wheeler vehicles in Mysore City (2013)

Figure 3 shows that the highest concentrations of three-wheeler road accidents were in the core area of Mysore city compared to other parts of the city. Accidents involving these vehicles are common across Hunsur Road (State Highway 88), Bannur Road (State Highway 33), Bangalore-Mysore Road (State Highway 17), KRS Road, Adichunchangiri Road, High-Tension double road, and certain parts of Ring Road.

Four-Wheeler Accidents

Four wheeler accidents account for 32.92 % of the total accidents in the city. Major reasons for the accidents by

these types of vehicles are over-speeding, drunken, and rash driving.

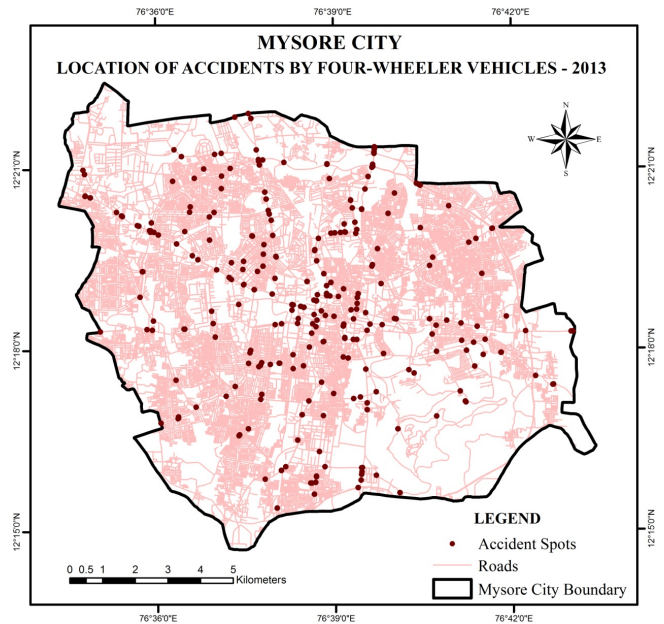


Fig. 4. Location of accidents by four-wheeler vehicles in Mysore City (2013)

A total number of 297 road accidents involved four-wheelers within the city in the year 2013. Figure 4 depicts the location of accidents involving four-wheeler vehicles. The State Highway-17, State Highway-33, and State Highway-88 had a greater number of four-wheeler induced accidents. Other than state highways, several four-wheeler accidents took place in different parts of Ring road, Metgalli road, NH 212, and Vishwamanava Double road.

Six-Wheeler Accidents

The accidents by six-wheeler including the buses and trucks account for 15.85 percent of the total accidents. The major reason for the accidents by these vehicles could be attributed to rash driving and over-speeding. The six-wheeler vehicles include trucks carrying goods and buses for both private and public transportation. These vehicles together have registered a total of 143 accidents within the city limits. The majority of these accidents were on the State Highway-17 and State Highway-88, as smaller roads from the city join them as intersections.

Over speeding and not following signal lights by trucks and negligence by buses are found to be the major cause for these accidents. Accidents by buses are common also in high traffic density areas like Sayaji Rao Road, Nelson Mandela Road, KRS Road, and Vishwamanava Double road.

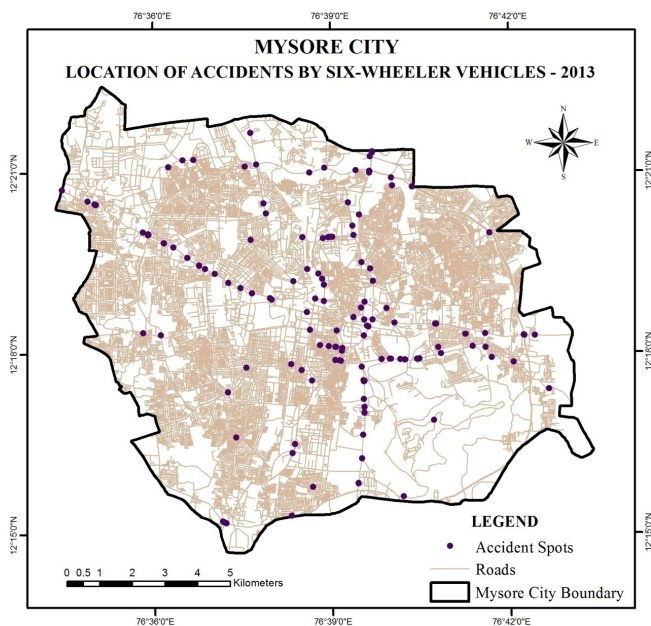


Fig. 5. Location of accidents by six-wheeler vehicles in Mysore City (2013)

Conclusion

There are several factors responsible for accidents but the drivers' fault is the most important factor. The analysis shows that the distribution of road accidental deaths in Mysore city varies in time-wise. Accidents are relatively constant and high from 6.00 pm to 10.00 pm and variable but low during mid-night 10.00 pm to 6.00 pm. There are several factors responsible for accidents but the drivers' fault is the most important factor in 2013. The main cause for this is that the problem of road traffic accidents does not belong to any definite agency, moreover at central or state, or local government levels. the accountability of dealing with the various aspects of problems including road tediousness test

for vehicles, the design of road networks and roads, urban planning, the introduction and enforcement of road safety legislations, and post-crash medical care is divided among many different agencies, sectors, and groups. Road users in Mysore city deserve better and safer road travel.

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